PROTECTIVE BAT COVER

CROSS-REFERENCE TO RELATED APPLICATIONS

[001] This application is a continuation-in-part of U.S. Patent Application Serial No. 10/687,875, filed October 20, 2003 (status pending), which is a continuation of U.S. Patent Application Serial No. 09/664,537, filed September 18, 2000, now U.S. Patent No. 6,681,821 B1 (issued January 27, 2004).

FIELD OF THE INVENTION

[002] The field of this invention relates to a protective cover for a bat, such as a baseball or softball bat.

BACKGROUND OF THE INVENTION

[003] Bats used for baseball, softball, and the like are generally constructed from metal or wood. Accordingly, prolonged exposure to sunlight, heat, moisture, and general inclement weather may result in damage to a bat. The life-span of a bat may also be reduced by careless handling on the part of those individuals using the bat. Gouges, nicks, splinters (with wooden bats), and scrapes, for example, may result when bats are improperly stored together, or allowed to bang into various other objects.

[004] Several protective articles for bats are known. These articles, however, typically comprise cumbersome carrying cases and bags, many of which are

designed to house several bats at one time. Bat bags in particular may be disadvantageous, as damage may result from multiple stored bats banging into one another. Additionally, such articles may be undesirable for those individuals who seek a protective cover that is lightweight, flexible, and that can be attached to, and removed from, a single bat in a quick and convenient manner.

[005] These and other drawbacks exist.

SUMMARY OF THE INVENTION

[006] The invention solving these and other problems in the art relates to a protective cover for a bat, or other structure. The cover is preferably formed from an elastic rubber material such as neoprene. Other materials, as described in greater detail below, may be used.

[007] One advantage provided by the protective bat cover is that it is lightweight, flexible, and easy to use, allowing for attachment to and removal from a bat or similar object in a quick and convenient manner.

[008] Another advantage of the protective bat cover over other known bat covers, is an increased life span due to construction from a material having a greater resistance to harmful environmental elements.

[009] Yet another advantage of the protective bat cover is its ability to protect the barrel (or other portion) of a bat from harmful environmental conditions, as well as damage resulting from inadvertent contact with various other objects.

[010] Yet another advantage of the protective bat cover is its ability to increase the range of temperatures in which the bat may be used without being damaged. Metal baseball bats, in particular, are known to experience a change in properties, often becoming harder in colder temperatures and softer in warmer temperatures. Use of the bat during these periods of hot and cold temperatures may make the bat more susceptible to dings and knocks, among other types of damage. A protective bat cover made of neoprene possesses insulative properties that serve to keep a bat warmer in colder temperatures, and vice versa, thus reducing damage to a bat and extending the life of a bat.

[011] Still yet another advantage of the protective bat cover is its ability to adapt its shape upon insertion of a bat, enabling use with various sized bats. The ability of neoprene to stretch, as well as its "memory-specific" nature, enables the protective bat cover to be easily secured to, and removed from bats with a diameter that is slightly larger than that of the cover.

[012] An additional advantage of the protective bat cover is the provision of a fastening mechanism thereon, which facilitates the placement of the cover on the bat, while enabling a relatively secure attachment to the bat.

[013] Another advantage of the protective bat cover is its adaptability for maximizing the visibility of various logos or graphics printed thereon. The surface area of the protective cover facilitates the prominent display of a team name, company name, team logo, graphic, or other design, especially in instances when the protective cover is being viewed from a distance.

[014] Another advantage of the protective bat cover is the provision of a finger strap and/or attachment mechanism secured to the closed end of the protective bat cover. A user may grab and pull on the finger strap to facilitate removal of the protective cover from a bat. The finger strap may also be used for a variety of other purposes. The attachment mechanism may comprise a clip, hook, ring, clasp, or other known mechanism that may enable the protective cover to be releasably, conveniently, and quickly secured to any number of objects including, for example, a fence in or around a dugout or ball field.

[015] Yet another advantage of the protective bat cover is the provision of a shoulder strap to enable a user to carry the protective cover (and/or bat) in a convenient manner.

[016] Still yet another advantage of the protective bat cover is its ability to, in certain embodiments, serve as a resistance device (*e.g.*, a weighted protective bat cover) for training or other purposes. According to one embodiment, a retention strap may be attached to the protective bat cover to secure any number of interchangeable weights (*e.g.*, weighted rods) in place such that a user may swing a bat (with the protective cover secured thereon) to simulate resistance. In this regard, a player (or user) may take one or more practice, resistance swings while still protecting the bat from damage.

[017] In an alternative embodiment, resistance training may also be accomplished via a retention pouch attached to the protective bat cover that may securely hold interchangeable, varying weights of various shapes and/or sizes.

[018] Another advantage of the protective bat cover is the provision of a drawstring closure at or near the open end of the cover to facilitate securing the cover to a bat.

[019] These and other objects, features and advantages of the invention will be apparent through the detailed description of the preferred embodiments and the drawings attached hereto. It is also to be understood that both the foregoing general description and the following detailed description are exemplary and explanatory and not restrictive of the scope of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[020] The invention will be described with respect to the accompanying drawings, in which Like elements are referenced with like numbers.

[021] FIG. 1 illustrates a protective bat cover encasing the barrel of a bat, according to an embodiment of the invention.

[022] FIG. 2 illustrates the shapes of various pieces comprising a protective bat cover during assembly, according to an embodiment of the invention.

[023] FIG. 3 illustrates a protective bat cover, according to an embodiment of the invention.

[024] FIG. 4 illustrates a protective bat cover, according to an embodiment of the invention.

[025] FIG. 5 illustrates a protective bat cover, according to an embodiment of the invention.

[026] FIG. 6 illustrates a protective bat cover, according to an embodiment of the invention.

[027] FIG. 7 illustrates a protective bat cover encasing a bat, according an embodiment of the invention.

[028] FIG. 8 illustrates a protective bat cover, according to an embodiment of the invention.

[029] FIG. 9 illustrates a protective bat cover having a finger strap and attachment mechanism, according to an embodiment of the invention.

[030] FIG. 10 illustrates a protective bat cover having a shoulder strap, according to an embodiment of the invention.

[031] FIG. 11A illustrates a protective bat cover having a shoulder strap, according to an embodiment of the invention.

[032] FIG. 11B illustrates a handle attachment, according to an embodiment of the invention.

[033] FIGS. 12A-12C illustrate various views of a retention strap secured to a protective bat cover, according to an embodiment of the invention.

[034] FIGS. 13A-13B illustrate various views of a retention pouch secured to a protective bat cover, according to an embodiment of the invention.

[035] FIGS. 14A-14B illustrate a protective bat cover having a drawstring closure, according to an embodiment of the invention.

[036] FIG. 15 illustrates a protective bat cover having a securing strap, according to an embodiment of the invention.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

[037] As used herein, the term "bat" may be used to refer to a baseball bat, softball bat, or any other article having a similar structure, used in either a recreational or non-recreational setting, or otherwise. In general, a bat may be said to include a handle portion and a barrel portion, with embodiments of the invention directed toward protecting either one or both of the handle and barrel portions.

[038] FIG. 1 illustrates a protective bat cover 10 secured to the barrel portion 8 of a bat 6. According to one aspect of the invention, the cover 10 permits the rapid and easy connection and disconnection to and from the barrel portion 8 of the bat 6 (or other structure). Preferably, the cover 10 is made of an elastic rubber material such as neoprene. One advantage of neoprene is its ability to conform to the shape of the barrel, which enables the cover 10 to be used with various sized bats, and which ensures a secure fit when placed over a bat. The ability of neoprene to flex, as well as its ability to retain the "memory" of a barrel shape, allows the protective bat cover to be easily secured to, and removed from bats with a diameter that may even be slightly larger than that of the cover.

[039] Neoprene also exhibits greater weather resistance than less elastic materials such as plastics, leather, nylon, and the like, which tend to be more susceptible to cracking, expansion, and other undesirable effects. This allows the protective bat cover to increase the range of temperatures in which a bat may be used without being damaged. Metal baseball bats, for example, are known to experience a change in properties, often becoming harder in colder temperatures and softer in warmer temperatures. When a bat is used during these periods of hot and cold temperatures, it is likely to be more susceptible to dings and knocks, among other types of damage. A protective bat cover made of neoprene possesses insulative properties that serve to keep a bat warmer in colder temperatures, and vice versa. While neoprene is the preferred material for implementing the present invention, it should be recognized that any similar materials having the desired properties may be used. For example, synthetic leather, various types of vinyl, vinyl-covered foam, nylon-covered foam, or other material-covered foam may also be utilized.

[040] According to one embodiment of the invention, protective cover 10 may be assembled by cutting a piece of material into the two general shapes illustrated in FIG. 2. A first material piece 12 is preferably cut into a generally rectangular shape, having a substantially first straight edge 12a and a substantially second straight edge 12b. The first and second edges (12a, 12b) may be folded toward one another in the general direction illustrated by arrows A and B. First and second edges (12a, 12b) may be stitched or otherwise fastened together to form a seam 14, with first material piece 12 now forming a hollow, tubular casing having two open

ends. A second material piece 16, preferably cut into the shape of a circle, may then be stitched or otherwise fastened to an open end 13 of the first material piece 12, forming a protective cover 10 having one closed end and one open end (or opening) 18. Such a cover is illustrated in FIG. 3.

[041] The shapes of first material piece 12 and second material piece 16, as seen in FIG. 2, are representative of a family of shapes that may be joined to form protective cover 10. Any orientation, geometric description or configurations of the material pieces described or shown are illustrative only, and accordingly should not be viewed as limiting. Similarly, protective cover 10 may be manufactured using only one piece of material, or any number of pieces of material using any known manufacturing techniques or methods. Those skilled in the art will understand that one or more material pieces may be stitched, glued, or seamed together in a number of different ways to achieve a protective bat cover as described and illustrated herein.

[042] While a material such as neoprene is ideal because of its ability to conform to the shape of the barrel, it may also be desirable to include a fastening mechanism with the cover 10, such as a hook and loop fastener (more commonly known as VELCRO). As illustrated in FIG. 2, a strip 22 of either hook or loop material may be stitched or otherwise fastened to first material piece 12. A strap 20 may be fastened to an edge of the first material piece, containing either hook or loop material, depending on the type of material provided on strip 22. If strip 22 contains hook material, for example, the strap 20 preferably comprises loop

material, and vice versa. FIGS. 1, and 4-6 illustrate embodiments of the invention in which hook and loop fasteners are utilized. In alternative embodiments (not shown), strips having button-snaps or other fastening mechanisms may also be used. In some embodiments, a fastening mechanism may not be included.

[043] To use the protective cover 10, a user may slip the barrel portion 8 of the bat 6 into the opening 18 of the cover, and then pull the cover down over the barrel of the bat, preferably as far as possible. Strap 20 may then be fastened to strip 22 to further secure the cover to the bat. As illustrated in FIG. 3, ample area exists on cover 10 for prominently displaying a logo or graphic.

[044] In the foregoing embodiments, the first and second edges (12a, 12b) of first material piece 12 have been stitched or otherwise fastened together to form a seam 14 that extends the entire length of the cover. In another embodiment of the invention, as illustrated in FIG. 5, the first and second edges (12a,12b) may be fastened together to form a seam 14 that extends only partially along the length of the cover 10, leaving a split that extends downward to opening 18. The provision of a split at the bottom of cover 10 facilitates the process of placing the cover on the bat. A user, for example, can grab either one or both of the two edges (12a, 12b) of the split and pull on them to provide assistance in getting the cover on to the bat. Also, a split enables the two edges (12a, 12b) to overlap each other when pulled tight and fastened, creating a relatively secure attachment of the cover 10 to a bat.

[045] FIG. 6 illustrates an additional embodiment of the invention wherein the first material piece 12 may be cut into a shape having a first rounded or otherwise shaped tab 24 extending from second edge 12b, and a second rounded or otherwise shaped tab 26 (shown in dashed lines in FIG. 6) extending from first edge 12a. Similar to the previous embodiment, the first and second edges (12a,12b) may be fastened together to form a seam 14 that extends only partially along the length of the cover 10, leaving a split that extends down to opening 18. The VELCRO™ fastening strap 20 is attached to tab 24, allowing the two tabs to overlap one another in a bias position when pulled tight and fastened, creating a more secure attachment of cover 10 to a bat. In an alternative embodiment, either one or both of tabs 24 and 26 may be present.

[046] While embodiments of protective cover 10 are illustrated in FIGS. 1-6, various alternatives may exist. In FIG. 7, for example, a protective cover 10 is shown extending along the entire length of a bat 6. Although illustrated with a zipper closure 28, various closure mechanisms including, but not limited to, a series of VELCRO™ straps or button-snaps may be used.

[047] FIG. 8 illustrates an embodiment wherein protective cover 10 does not include a fastening mechanism. Rather, cover 10 comprises a substantially tubular casing wherein, as described in detail above, first and second edges (12a,12b) may be fastened together to form a seam 14 that extends only partially along the length of the cover 10, leaving a split that extends down to opening 18. The provision of a

split enables a user to grab either one or both of the two edges (12a, 12b) of the split and pull on them to facilitate the process of placing the cover on to the bat.

[048] According to an embodiment of the invention, protective cover 10 may be provided without either or both of the fastening mechanism or split extending into opening 18.

[049] According to an embodiment of the invention illustrated in FIG. 9, a finger strap 40 may be provided which can be secured to the closed end (the end opposite to open end 18) of cover 10. Finger strap 40 may be stitched, glued, seamed or otherwise fastened to the closed end of cover 10 using any suitable manufacturing technique. According to one exemplary embodiment, finger strap 40 may be secured in place when the second material piece 16 (FIG. 2), preferably cut into the shape of a circle, is stitched or otherwise fastened to the open end 13 of the first material piece 12 to form cover 10, as described above. A user may grab and pull on finger strap 40 to facilitate removal of cover 10 from a bat. Finger strap 40 may also be used for a variety of other purposes including, but not limited to, serving as a loop for hanging cover 10 on an object (*e.g.*, a peg, nail, fence post, etc.), regardless of whether cover 10 is being used at the time to cover a bat, or not.

[050] In addition to a finger strap 40, cover 10 may also be provided with an attachment mechanism 60 in certain embodiments. Attachment mechanism 60 may be secured to a strap 50 that extends from cover 10. Similar to finger strap 40 as described above, strap 50 may be stitched, glued, seamed or otherwise fastened to the closed end of cover 10 using any suitable manufacturing technique. Although

illustrated as a clip in FIG. 9, attachment mechanism 60 may also comprise a hook, ring (*e.g.*, a key ring), clasp, or any other known mechanism that may enable cover 10 to be releasably, conveniently, and quickly secured to any number of objects including, for example, a fence in or around a dugout or ball field. In certain embodiments, either one or both of finger strap 40 and strap 50/attachment mechanism 60 may be included with cover 10. In an alternative embodiment (not illustrated), attachment mechanism 60 may be attached directly to finger strap 40 at any location along finger strap 40, or to a strap that is attached directly to finger strap 40. Other configurations may be utilized.

[051] According to yet another embodiment of the invention illustrated in FIG. 10, protective cover 10 may further include a shoulder strap 70 to enable a user to carry the cover 10 and/or bat 6 in a convenient manner. Shoulder strap 70 may comprise a first end that may be stitched, glued, seamed or otherwise fastened to cover 10 near its closed end, and a second end that may be stitched, glued, seamed or otherwise fastened to cover 10 near its open end 18. In certain implementations, a clasp 72 (as known and understood by those having skill in the art) may be provided, through which shoulder strap 70 may be fed, so as to make the length of shoulder strap 70 adjustable and customizable for different users.

[052] According to an alternative embodiment illustrated in FIG. 11A, a first end of shoulder strap 70 may be stitched, glued, seamed or otherwise fastened to cover 10 near its closed end, while a second end of shoulder strap 70 may be secured to a handle attachment 80 adapted to be wrapped around and secured to the handle

portion of bat 6. As shown in FIG. 11B, handle attachment 80 may comprise a strip of fabric or any other suitable material having a first end 82 and a second end 84 that may mate via a hook and loop fastener, button-snap, or other suitable attachment mechanism to securely fasten handle attachment 80 to the handle portion of bat 6.

[053] In addition to the many advantages that cover 10 provides for protecting bats, cover 10 may also, in certain embodiments, act as a resistance device for training or other purposes. For example, as illustrated in FIG. 12A, a retention strap 90 may be stitched, glued, seamed or otherwise fastened to cover 10 along either all or a portion of the length of cover 10. Retention strap 90 may secure a weight 100 (*e.g.*, a weighted rod) in place such that a user may swing a bat (with cover 10 secured thereon) to simulate resistance. In this regard, a player (or user) may take one or more practice, resistance swings while still protecting the bat from damage. In various embodiments, interchangeable rods of various lengths and/or weights may be secured by retention strap 90.

[054] According to an embodiment of the invention, retention strap 90 may comprise any number of curved pieces 92 of material of any length secured to a support strip 94 (*e.g.*, FIGS. 12A-12B) along its length, thus forming a channel to secure rod 100 in place. Support strip 94 may extend along (and be affixed to) the entire length of cover 10, or only along a portion thereof. The series of curved pieces 92 may be spaced along support strip 94 such that rod 100 may be exposed

when inserted. This may enable a user to use his or her fingers to guide rod 100 when either inserting or removing rod 100.

[055] In one implementation, the end 93 of the curved piece 92 positioned closest to the closed end of cover 10 may be secured to support strip 94 so as to prevent rod 100 from sliding out of retention strap 90 when a user swings the bat. Other attachment mechanisms (e.g., hook and loop fasteners) may be placed along retention strap 90 to secure rod 100 within the formed channel.

[056] Retention strap 90 may be formed integral with seam 14 during assembly, or positioned along all or a portion of the length of cover 10 at any position. In an alternative embodiment illustrated in FIG. 12C, retention strap 90 may comprise any number of curved pieces 92 of material of any length secured directly to cover 10 without using an intermediate support strip 94. Other configurations may be utilized.

[057] According to an embodiment of the invention illustrated in FIGS. 13A-13B, resistance training may alternatively be accomplished via a retention pouch 110 designed to house and secure interchangeable, varying weights (not illustrated) of various shapes and/or sizes. Retention pouch 110 may comprise a rectangular or other shaped material piece having two opposing (lengthwise) edges (112a, 112b) and two opposing (width) ends (112c, 112d). Opposing end 112c may be secured to cover 10, and opposing edges (112a, 112b) may be secured to cover 10 along either all or substantially all of their respective lengths. A portion of each of opposing edges (112a, 112b) closest to opposing end 112d may not be secured to

cover 10, thus enabling end 112d to be folded back over retention pouch 110 in the direction illustrated by arrow "B." A portion of hook and/or loop fastener may be affixed to the underside of end 112, for mating with a strip 114 of hook and/or loop fastener secured to cover 10 in a direction parallel to end 112. When end 112 is folded over in the direction illustrated by arrows "A," the hook and/or loop fasteners affixed to the underside of end 112 will mate with the hook and/or loop fastener of strip 114 to create a secure, closed pouch.

[058] When closed (FIG. 13B), retention pouch 110 may secure one or more interchangeable weights in place such that a user may swing a bat (with cover 10 secured thereon) to simulate resistance. In this regard, a player (or user) may take one or more practice, resistance swings while still protecting the bat from damage.

[059] According to some embodiments, cover 10 may have a diameter that is slightly larger than the diameter of some bats. Accordingly, cover 10 may, in certain implementations, include a drawstring closure at open end 18 to assist in securing cover 10 to bat 6. According to an embodiment of the invention illustrated in FIGS. 14A-14B, a drawstring 154 may be threaded through a drawstring channel 150 formed either along open end 18 of cover 10 (*e.g.*, along the circumference of open end 18), or near open end 18 of cover 10. A clamping mechanism 156 (as recognized by those having skill in the art) may be utilized to secure drawstring 154 in place (at a particular position) once drawstring 154 has been pulled to secure cover 10 to bat 6. Other drawstring configurations and/or clamping mechanisms may be utilized.

[060] According to one implementation of the invention, one or more securing straps 164, as illustrated in FIG. 15, may be provided to assist in securing cover 10 to bat 6. The provision of one or more securing straps 164 may be beneficial in instances when, for example, cover 10 is weighted, as described above with regard to FIGS. 12A-12C and FIGS. 13A-13C. When a user swings a bat having a weighted cover placed thereon for resistance training or other purposes, the one or more securing straps 164 may counteract those forces (caused by the weight(s)) that may otherwise loosen the cover, thus preventing the cover from coming either part of (or all of) the way off. According to one embodiment, straps 164 may fabricated from elastic or any number of other materials, and any number of straps 164 may be secured to cover 10 at any number of connection points 168 oriented along the circumference of open end 18 of cover 10. Straps 164 may be permanently secured to cover 10 at connection points 168 (*e.g.*, stitched), or secured via removable connection mechanisms (*e.g.*, alligator clips, velcro, etc.). The one or more straps 164 may extend along the handle portion of bat 6 and be either permanently or detachably secured to a ring 160 positioned near the knob of bat 6 at the handle end. Ring 160 may comprise an elastic ring adapted to stretch over the knob of the handle of bat 6, or may comprise a ring similar to handle attachment 80 as described in detail above and illustrated in, for example, FIG. 11B. Other configurations may be used. In some embodiments, one or more securing straps 164 may be utilized even if cover 10 is not weighted.

[061] The various embodiments described in detail above and illustrated in the accompanying drawing figures should not be viewed as limiting. As such, in various embodiments, the protective bat cover may include either none of, or any combination of any one or more of the features disclosed herein including, for example, a fastening mechanism, split-seam extending into the open end of the substantially tubular casing, logo, finger strap and/or attachment mechanism, shoulder strap, interchangeable weights (for resistance training or other purposes), drawstring closure, or securing straps.

[062] Other embodiments, uses and advantages of the invention will be apparent to those skilled in the art from consideration of the specification and practice of the invention disclosed herein. The specification should be considered exemplary only, and the scope of the invention is accordingly intended to be limited only to the following claims.